UNIVERSITY OF KENTUCKY - COLLEGE OF AGRICULTURE

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Cleaning FLOOD-SOILED Clothing

Flood water may be contaminated with sewage waste that contains harmful bacteria. If your clothes come into contact with flood water, normal laundering with detergent and water is not enough to kill the bacteria that may be present. The bacteria from floodwater can remain alive in fabrics for a long time. Thus, it is important that flood-soiled clothing and textile items be thoroughly clean and disinfected before using. Be sure to wear rubber gloves and protective clothing when handling flood-soiled clothing. Proper sorting, washing or dry-cleaning, drying, and storing flood-soiled clothes will reduce the number of harmful bacteria and prevents contamination of clean clothes.

SORTING

To prevent the bacteria of flood-soiled clothes from contaminating clean clothes and surfaces:

- Do not sort flood-soiled clothes with uncontaminated clothes.
- Do not shake flood-soiled clothes near clean, uncontaminated laundry or near surfaces that will • later be used for sorting and folding clean laundry. Shaking contaminated clothes releases bacteria which then settle on nearby surfaces.
- Sort dirty clothes on a table or in an area where you will not fold clean clothes, or cover the table or the work area with clean paper, plastic sheeting, or any other clean material before working with clean clothes.
- Cover canvas-bottomed carts with clean paper or plastics before loading them with clean laundry. Such precautions are especially important when laundry facilities are shared.

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Check the garments' care labels to determine whether the garments are drycleanable or washable. If you have a choice between washing or drycleaning, washing garments with a disinfectant may be more effective in reducing bacteria than drycleaning.

DRY-CLEANING

Take <u>dry-clean only</u> garments to a professional dry cleaner. Tell the cleaner that the items have experienced flood damage. The professional drycleaning process can reduce harmful bacteria to safe levels due to the flushing action and the steam used in finishing. Steam at 325° F. will kill bacteria. However, the temperature of the steam used will vary depending on the fiber content of the garment, pressure of the boiler, the distance from which the garment is steamed and whether or not the garment will be ironed. The steam is particularly effective in killing bacteria, so do not use a coin-operated dry cleaner for disinfecting, because steam is not used in the finishing process.

Before you take clothes to be dry-cleaned:

- Allow garments to dry slowly at room temperature inside or line dry outdoors. *Do not* hang garments near a warm stove or radiator. Be sure garments are dry before you take them to the cleaners.
- Shake and brush clothes well outside to remove as much dirt as possible.
- Tell the cleaner the fabric's fiber content, if this is not apparent, along with the cause of any known stains, and that the garments are flood-soiled.

MACHINE WASHING

- Make sure your wash water is safe to use before washing clothing. [Flood waters may have impacted your water source.]
- Wash flood-soiled clothing as soon as possible to prevent mildew. If this can not be done, shake out or brush off excess soil outdoors. Rinse items several times in cool water; then air dry.
- Even if you do wash right away, rinse clothes several times in cool water to remove as much mud as possible before washing. A cold water soak with an enzyme product like Bix or Axion may help. Do not soak flood-soiled clothes with rust stains in hot soapy water as hot soapsuds will set rust-colored stains. If there are rust or rust-colored stains, use a commercial rust removal product.
- When no more dirt can be rinsed out, machine wash using the *highest water level* possible. Use the *hottest water* and *longest agitation period* appropriate for the clothing (many more bacteria survive cold water laundering than they do either hot or warm water laundering). For effective cleaning, do not crowd clothes in the machine.
- Add a disinfectant to the wash water. For disinfecting, use only products that display an EPA Registration Number on the label. This assures that the product has met EPA requirements for disinfectants. When using any disinfectant, follow label directions. Most disinfectants, other than chlorine bleach, are effective only on hard surfaces so make sure the disinfectant that you use has laundry directions on the label. Liquid chlorine bleach is the most accessible, cheapest, and easiest disinfectant to use. It effectively kills bacteria in warm, hot, or cold water. *Follow the directions on the label for disinfecting*. Amounts of chlorine bleach will differ depending on desired results, fiber content, and color.

A disinfectant like chlorine bleach reduces the number of bacteria to a safe level. Ordinary laundry detergent and hot water are not enough.

A disinfectant in the wash water prevents harmful bacteria from being transferred from one article of clothing to another during the wash cycle, or from remaining on the inner surface of the washing machine and being transferred from one load of clothes to the next. In fact, not only should you use a disinfectant when treating flood-soiled clothing, but also when there has been an illness in the family or when using a coin-operated washing machine.

HOW MUCH BLEACH

Follow the recommended amounts given on the product label. However, if that is not available the following guidelines can be used. Depending on desired results, fiber content, fabric color, and item use, the following amounts of bleach:

- To sanitize clothing, 2 tablespoons of liquid chlorine bleach per washer load effectively kills bacteria.
- Chlorine bleach is harmful to certain fibers, such as silk, wool, and spandex, and to durable press fabrics and generally should not be used on them. However, research indicates that a sanitizing amount of 2 tablespoons liquid chlorine bleach per washer load will kill bacteria without substantially damaging clothes. Do not use more than 2 tablespoons per washer load. Such disinfection should not be done on a regular basis.
- Brightly colored fabrics that may fade when chlorine bleach is used at higher levels, generally can be successfully sanitized with 2 tablespoons of liquid chlorine bleach per washer load without significant color loss.
- For stain removal or heavily soiled items ½ to 1 cup of liquid chlorine bleach per washer load is generally needed. *Check directions on bleach container for the specific amount to use*. **NOTE** restrictions for certain fibers and brightly colored items above.

DRYING

More bacteria are killed by drying clothes in an automatic clothes dryer than by line drying. Both methods, however, will reduce the number of bacteria. Survival of bacteria varies with the size of the load, the drying temperature, and drying time. Do not dry fabrics in a dryer unless you are satisfied with the results. Drying in a dryer can set stains, making them impossible to remove.

- Select the hottest drying temperature and longest drying time safe for the fabric.
- Make sure the exhaust of the dryer is vented to the outdoors so that bacteria released from fabrics will not be dispersed into the room, basement or other living area.
- Line drying is most effective on a sunny day because the sun's ultraviolet rays help destroy harmful bacteria.

IRONING

Ironing will also help kill germs on cottons and cellulosic type fabrics such as rayon. Steam pressing will kill germs in items that require air drying away from the sun, such as washable wools.

STORAGE AREA

Before putting away clean clothing, make sure you have disinfected the storage area. (Check Home Furnishings materials for how-to.)

CLEANING FLOOD-SOILED LEATHER SHOES

Remove mud before it dries on shoes. Mud may stain leather and the longer it stays on, the worse the stain may be. To clean shoes:

- Scrape off moist mud as soon as possible.
- Wipe leather with soft, damp cloth.
- Stuff shoes with soft, crumpled paper to help them hold their shape and to absorb moisture on the inside. Shoe trees may stretch the leather out of shape.
- Dry shoes at room temperature. Too much heat will ruin leather. An electric fan will help the drying process.
- As shoes dry, clean with saddle soap (which can be purchased at shoe store or grocery).
- When shoes are thoroughly dry, polish with a good paste or cream.
- Don't wear shoes until they are thoroughly dry. Wet leather is soft, pulls out of shape easily, tears and wears out quickly.

Where trade names are used, no endorsement is intended, nor criticism implied of similar products not named. Revised 2/94 BJD

Bette Jo Dedic, Retired Extension Clothing Specialist & Dr. LoErna P. Simpson, Retired Textiles Professor, Bassist College

Revised by Dr. Linda M. Heaton Extension Professor Textiles & Clothing

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